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Uses and Costs of Consumer Credit

University of Illinois at Urbana-Champaign • College of Agriculture
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CONSUMER CREDIT can be one of the most valuable resources individuals or families have if they use it wisely. It can become a liability and a threat to financial security, however, if it is not used wisely.

Consumer credit is a business transaction. It enables people to get goods, services, or money now (primarily for family, household, or agricultural purposes) and then pay for them at some future time — usually within two years. Through the use of credit, people can: (1) acquire durable goods, such as household equipment or automobiles; (2) meet unexpected expenses, such as those caused by accidents or illness; (3) meet everyday expenses when incomes are interrupted, as when the breadwinner is laid off or is ill; (4) finance family expenses from paycheck to paycheck, or until expected income, such as the returns from sale of farm produce, is received.

Although it is desirable to put money aside for emergencies, many families find it hard to save. If some need does arise, consumer credit is often the answer. Judging from the availability of consumer credit in the United States, you should have little difficulty in getting it if you need it. In fact, most of the nation's families use some form of consumer credit every year.

Types of Credit

Consumer credit consists of two main types — cash credit and merchandise or sales credit. Cash credit provides funds that may be put to any use. Merchandise or sales credit permits the consumer to postpone paying for specified goods. It is available in different forms such as charge accounts, revolving accounts, budget accounts, or installment accounts.

Charge Accounts

The charge account is one of the most prevalent forms of credit in the United States. It does not usually involve an interest payment, a promissory note, or a contract form. The account is most often payable at the end of 30 days. Although there is normally no charge for this type of credit, there is often a markup on goods in the store to cover the cost of the service. Sometimes a charge will be made if the account is not paid on time. In addition, some 30-day charge accounts become revolving charge accounts if they are not paid when due.



Revolving or Budget Accounts

Buying on revolving or budget accounts is much the same as buying on the installment plan. These accounts, however, may be used for all types of goods, while the installment plan is used for the more durable goods, such as major equipment. A limit is usually set on the revolving account. The size of the unpaid balance determines how much must be paid every month. For example, a buyer could be allowed a limit of \$100 and be required to pay \$10 per month plus $1\frac{3}{4}$ percent interest on either the unpaid or the previous balance each month (page 10). This would mean a 21 percent annual interest charge, a costly type of credit.

Installment Credit

Installment credit accounts are used when one is purchasing durable goods, so they involve relatively large amounts of credit. A down payment is often required, and the rest of the purchase price, plus interest, is paid off in several installments.

Every retail installment contract in Illinois must be in writing. This formal contract defines the obligations of the buyer and seller and must be signed by both parties. Under this contract, the seller holds the title to the goods and reserves the right to repossess them if the buyer becomes delinquent in his or her payments.

In addition, if the contract provides, the seller may collect from the buyer a delinquency and collection charge as well as payment of reasonable attorney's fees incurred in the collection or enforcement of the contract. Therefore, before you sign an installment contract, be sure to read it thoroughly.

Before you purchase goods using installment credit, consider the cash sale price of the article, the total down payment (including cash or "trade-in"), the amount and number of monthly payments, and the rate of interest.

The cost of installment credit may vary a great deal from store to store. In addition, the cost within a given store varies with the number of payments and the total amount of the installment purchase. Generally, the amount of interest decreases as the amount of the purchase increases. For example, if your principal balance is less than \$500, you may be charged \$16 per \$100 per year. If it is from \$500 to \$800, you may be charged \$14 per \$100 per year on the amount by which your balance exceeds \$500. If your balance is over \$800, you may be charged only \$12 per \$100 per year on the amount by which it is over \$800. Because the cost of installment credit varies, it is difficult to compare the interest rate of installment credit with the rates of other types of sales credit. For specific items of

home furnishings and appliances, however, the interest rate is often less on an installment plan than on a revolving credit account if the purchased item costs \$100 or more with up to 24 months to pay.

Consolidation Loans

As consumer credit becomes a more widely accepted way to buy, some families are finding that they have over-committed themselves financially. When this happens, people often find that they can ease the financial pressure by getting a new loan to cover all the old debts. This type of loan, known as a consolidation loan, is often available from a bank, credit union, or finance company. A consolidation loan does not reduce the total amount of money that you owe, but it does reduce the size of your monthly payments. Since the period of time over which you are repaying the loan is extended, the dollar amount of interest will be increased.

It also is possible to consolidate installment purchases. In this case, the seller must prepare a separate retail installment contract or a written memorandum of each additional purchase you make. Another option you have is to add purchases to an installment contract. Before you do this, however, make sure you understand your rights and responsibilities under the Retail Installment Sales Act.

Before you decide either to get a consolidation loan or consolidate your installment purchases, make certain that you know all the facts about the loan. You should know what the monthly payments are, how many payments you will have to make, and how much additional interest you are paying since your time for paying off your debts has been extended. In addition, be sure to compare the cost for consolidation loans at different lending institutions, just as you would for any other type of credit.

Consumer Credit Agencies

Commercial Banks

Commercial banks make small cash loans to consumers. The amount of money that banks lend and the interest rate they charge may vary in the same community. Further, the same bank may be willing to lend different amounts of money and charge different interest rates to different individuals. On the whole, commercial banks are one of the best sources for a small loan if you are a good risk and have good collateral. Life insurance policies, which have a loan value, may be used as security for a small loan from a bank.

Bank interest rates vary from 6 to 18 percent a year; the higher rates are on unsecured loans. It is common for banks to discount a loan; that is, they deduct the interest charge from the principal at the time the loan

is made. For example, on a \$100 loan at 6 percent interest, the borrower would be given \$94. As brought out on page 9, the true interest rate on discounted loans is somewhat higher than the stated rate.

Credit Unions

Credit unions are cooperatives organized by a group of people, usually in one industry. To be eligible for a loan, a person must be a member, owning at least one share (usually costing around \$5) in the credit union. This membership entitles him or her to all voting privileges in the organization. The overhead of a credit union is low, partly because members donate their time for such jobs as serving on a committee that grants loans to other members. Sometimes office space is rent free.

Credit unions charge less interest than many other agencies. By federal law, the maximum rate of interest on loans is 1 percent a month on the unpaid balance. The true rate of interest would be 12 percent a year. Sometimes credit unions charge rates below the allowed maximum. Usually the borrower pays his or her loan in monthly installments.

Life Insurance Companies

A policyholder may borrow money directly on his or her life insurance policy after it has been in effect long enough to build up a cash surrender value. Most policies state the amount of money that the company will lend. Companies usually make loans at the annual rate of 6 percent, but this rate may vary.

If a person borrows on his life insurance policy, the face value of protection is decreased by the amount of the loan. If the policyholder should die, the beneficiary is paid only what is left after the loan plus any unpaid interest has been deducted from the face value of the policy. Since insurance companies encourage but do not demand that such loans be repaid, the borrower may be tempted to postpone repayment. As already indicated, the life insurance policy may serve as collateral for a bank loan, also.

Savings and Loan Associations

Savings and loan associations, operating under special federal and state laws, make loans primarily for home ownership. Regulations permit them to lend money for mobile homes and also for educational purposes. In addition, a person who has an open-end mortgage may be able to add consumer goods to the mortgage; in this case, the interest rate on the mortgage may or may not increase.

You may also get a loan on your savings. Usually the loan does not exceed 90 percent of the value of the account. The interest rate on these

loans is regulated by law. The maximum interest rate that may be charged is 2 percent over the current dividend rate being paid.

If you need funds, it would seem more realistic to use the savings themselves rather than to borrow against them, especially since you would generally pay more as interest on the loan than you would receive as dividends on your account (5 to 5¼ percent). However, borrowing may be justified when you need money just before dividends are to be declared on your account. If dividends are declared semiannually, for example, you will receive your dividend for the entire six-months period, and if your loan is for a much shorter period, you may come out ahead on the transaction.

Consumer Finance Companies

In Illinois, consumer finance companies are regulated by two laws — the Consumer Finance Act and the Consumer Installment Loan Act. Many finance companies operate under both laws. Businesses licensed under either of these acts may also engage in the business of a sales finance agency. When they do so, they must comply with the regulations set forth in the Sales Finance Agency Act.

Both the Consumer Finance Act and Installment Loan Act are now somewhat broader than they used to be. Until June 15, 1979, the Consumer Finance Act applied only to consumer finance companies that make “small” loans of \$1,500 or less, and the Installment Loan Act applied only to consumer finance companies that make “large” loans of more than \$800 but no more than \$10,000. Since that time, companies licensed under the former have been permitted to make installment loans in amounts exceeding \$5,000 within the limits specified for installment loans. These companies are licensed in Illinois. Companies licensed under the Consumer Installment Loan Act can now make loans of \$800 or less. The maximum rate of interest consumer finance companies operating under this Act may charge depends on the amount and the length of time of the loan. For example, on loans not exceeding 30 months, the maximum interest rate is 8.5 percent per year on the original face amount of the loan contract. On loans exceeding 57 months but not exceeding 60 months, the maximum interest rate is 7.09 percent per year. The maximum interest rate these companies may charge on installment loans of \$800 or less is 7.0 percent or less per year for not more than 30 months.

In addition, these companies may provide, *but cannot require*, decreasing-term credit life insurance and credit accident and health insurance to the borrower. At no time can the amount of the insurance exceed the actual amount of the unpaid indebtedness. This and other regulations relating to credit life insurance and credit accident and health insurance are prescribed by the State of Illinois Department of Insurance as set forth by Illinois law.

Credit Cards

One of the most popular ways of using consumer credit is with the credit card. Although there are several different types of credit cards, most provide revolving credit combined with the 30-day charge account. The holder of the credit card pays no finance charge if he or she pays the bill within the time limit set by the agency that issues the card. However, after that date interest is charged, usually $1\frac{3}{4}$ percent per month on the unpaid or previous balance (a true annual interest rate of 21 percent).

Types of Credit Cards

For many years department stores and national oil companies have issued *single-use* credit cards. These cards are for use in one department store (or chain of department stores) or in service stations selling a particular brand of gasoline. The cards are issued free to consumers, and usually there is a “free” period in which to pay the bill before an interest charge is made.

Many single-use cards are becoming *dual-use* or *multiple-use* cards. Some may be used at both a department store and restaurant; others at service stations, motels, and restaurants designated by the issuing company.

The *travel and entertainment* credit card, which has become popular since World War II, establishes credit with a number of different companies. The companies send charges to a centralized bookkeeping service, and the holder of the credit card is sent one bill. This type of card costs the holder an annual fee. Many businessmen use travel and entertainment credit cards for expense account records.

Bank credit cards were first issued in the 1950's but have come into major importance for everyday credit use in recent years. Today millions of persons throughout the United States have bank credit cards that may be used at service stations, restaurants, hardware or department stores, beauty and barber shops, in short, at any place displaying “_____ credit cards accepted here.” Over 2,000 commercial banks throughout the country are involved in issuance of bank credit cards. Bank credit cards may be free to the consumer if the bills are paid when due, but consumers must be certain to check individual credit cards for finance charges and annual interest rates, since there is much variation in credit card plans offered. Most bank cards have an annual fee.

Lost Credit Cards

If you lose a credit card, notify the issuer at once, first by telephone, then in writing. The company will stop payment on charges made on the card and will issue you a new one. Until payment is stopped, the person

who finds your credit card might use it illegally to run up a big bill for which you could be partially liable.

Some credit cards are insured by the issuer. You may also buy insurance to protect against the loss or theft of credit cards. Your best protection, however, is provided by federal law. If your card is lost or stolen, you are liable for no more than \$50 for each account. You are not liable at all if you inform the issuer of the card that it has been lost or stolen before someone else uses it. You are further protected by the federal law requiring that some identification of the user, either a photograph or signature, appear on all credit cards.

The law also requires that companies provide you with a self-addressed, prestamped notification form, such as an envelope or post card, which you can mail in if your credit card is lost or stolen. Often the forms are color-coded so the company knows the problem as soon as the notification reaches the office. If you have not received notification forms from the companies where you have credit cards, ask for them.

Even if you mail the notification form immediately, you will be better protected if you also call the company. Some companies offer special “hot lines” so you can report the loss or theft of your credit card free of charge. Remember, if your liability is questioned, you must be able to prove that you notified the company when the card was lost or stolen.

Keep a record of your credit cards in a safe place where you can easily get it when needed. Include the name, address, and telephone number of each issuing company, as well as your credit card number.

Unsolicited Credit Cards

Illinois and federal laws protect you against liability for unsolicited credit cards. In fact, sending you unsolicited cards is illegal. You should not receive a credit card, issued in your name, if you have not applied for the card or for the extension of credit or for the establishment of a charge account. If you do receive an unsolicited card, you are not responsible for any purchases made unless you indicate your acceptance of the card by signing or using it or by permitting or authorizing someone else to use it.

The best thing to do with an unsolicited credit card that you do not intend to use is to destroy it.

Figuring Interest Costs

The amount you must pay to use someone else’s money is called interest. When you borrow money you pay the lender enough to cover the cost of the money to him or her, plus a share of the cost of running his or her office, plus enough profit to make the lending operation worthwhile.

Federal law requires that lenders give you the annual percentage rate they charge. To help in comparing the credit costs of different agencies, you should know how to translate credit charges into simple interest rates and total dollar costs. Although most lending agencies will give you honest figures, you need to be able to calculate them yourself.

Simple Interest

Simple interest is what you pay for borrowing money that you agree to *pay back in a lump sum*. It is by law expressed as an annual percentage, or “rate,” of the borrowed amount, this percentage being payable for each specified time period that you use the money. For example, you may borrow at the rate of 6 percent per year. If you borrow \$200 at this rate you would pay \$12 to use the \$200 for one year; \$6 to use it for six months; or \$24 to use it for two years. A basic arithmetic formula may be used to figure simple interest when the principal and the interest are paid at the end of a time period.

Finding the dollar cost of a loan. Assume that you know the principal, interest rate, and length of the loan. To find the dollar cost, you multiply the principal by the annual rate of interest, and then multiply by the time for which the loan is made.

This is expressed by the following basic formula:

$$D = PRT \quad \text{where}$$

D = unknown dollar cost of credit
 P = principal (amount borrowed)
 R = annual rate of interest
 T = time

Using the figures in the example given above (\$200 borrowed at 6 percent for one year), you would have the following results:

$$D = PRT \quad \text{where}$$

D = unknown dollar cost of credit
 P = \$200
 R = 6 percent or .06
 T = 1 year

$$D = \$200 \times .06 \times 1$$

$$D = \$12$$

If you want to borrow the money for six months (one-half year), the problem would be:

$$D = PRT \quad \text{where} \quad T = 6/12 \left(\frac{1}{2}\right) \text{ year}$$

$$D = \$200 \times .06 \times \frac{1}{2}$$

$$D = \$6$$

Or suppose that you want to use the money for 2 years:

$$D = PRT \quad \text{where} \quad T = 2 \text{ years}$$

$$D = \$200 \times .06 \times 2$$

$$D = \$24$$

Finding the interest rate. The basic formula ($D = PRT$) may be transposed to figure the annual interest rate when the dollar cost is known:

$$R = \frac{D}{PT} \quad \text{where}$$

R = unknown annual rate of interest
 D = dollar cost of credit
 P = principal
 T = time

Substituting figures from the above problem, we have:

$$R = \frac{D}{PT} \quad \text{where}$$

R = unknown annual rate of interest
 $D = \$12$
 $P = \$200$
 $T = 1 \text{ year}$

$$R = \frac{\$12}{\$200 \times 1} = .06$$

$$R = 6 \text{ percent}$$

Discount Rate

Another way of computing interest is the discount rate. This rate is a percentage of the whole amount borrowed, charged for the time period it will be used, and deducted from the amount actually given to you. In this case, the simple interest is higher than the stated rate, because you do not have use of the entire amount of money. For example, on \$200 borrowed at a discount rate of 6 percent for one year, the lender discounts or deducts \$12 at the time of the loan; therefore, the borrower actually receives only \$188. You can use the formula for figuring simple interest to find out how much interest you are actually paying with the discount method:

$$R = \frac{D}{PT} \quad \text{where}$$

R = unknown annual rate of interest
 D = dollar cost of credit — \$12
 P = principal — \$188
 T = time — 1 year

$$R = \frac{\$12}{\$188 \times 1} = .064$$

$$R = 6.4 \text{ percent}$$

The 6 percent discount rate is therefore equivalent to a true simple interest rate of 6.4 percent a year.

Dollar Charge

In a dollar charge transaction, the credit charge is a stated amount of money and is paid in a lump sum at the end of the loan period. For example, on a \$180 loan for one year the interest charge is quoted as \$15.

You pay \$195 at the end of 12 months. You can figure the simple interest as follows:

$$R = \frac{D}{PT} \quad \text{where}$$

R = unknown annual rate of interest
 D = dollar cost of credit — \$15
 P = principal — \$180
 T = time — 1 year

$$R = \frac{\$15}{\$180 \times 1} = .083$$

$$R = 8.3 \text{ percent}$$

The \$15 cost of the loan is equivalent to 8.3 percent simple interest. You have full use of the principal — \$180 — for one year in this instance.

Revolving Charge Accounts

Most stores in Illinois charge interest of $1\frac{1}{2}$ percent a month on revolving charge accounts. However, the basis on which the interest is calculated varies from store to store. For many years, the unpaid balance was used as the basis; during recent years, however, many companies have begun to use the previous balance.

Your previous balance is the amount you owed at the beginning of the previous month before you made any payments. Your unpaid balance is the amount you owed after your monthly payment was made.

Assume, for example, that your bill last month was \$150 and that you made a \$50 payment, leaving an unpaid balance of \$100. If interest for the month is figured on the previous balance of \$150, it will be \$2.25:

$$\begin{array}{r} \$150 \\ \text{(previous balance)} \end{array} \times \begin{array}{r} 1\frac{1}{2}\% \\ \text{(monthly interest rate)} \end{array} = \$2.25$$

If interest is computed on the unpaid balance of \$100, it will be \$1.50:

$$\begin{array}{r} \$100 \\ \text{(unpaid balance)} \end{array} \times \begin{array}{r} 1\frac{1}{2}\% \\ \text{(monthly interest rate)} \end{array} = \$1.50$$

Thus, even with the same rate of interest, you will pay a larger finance charge if the previous balance rather than the unpaid balance is used as the basis for calculations.

Some stores also have a “minimum finance charge.” This means that you pay at least a 50-cent finance charge regardless of the basis used for computing interest or the interest rate. This only applies to bills on which the monthly interest charge would be less than 50 cents. Some companies say that it costs them this much to send you a bill. So even if your balance is only \$10, you will still have to pay at least 50 cents.

Installment Payments

The installment payment is a common method of paying for merchandise or repaying cash loans. The calculations required for figuring the true annual rate of interest on installment payments are more difficult than those we have used thus far. This is because the borrower does not keep the entire amount borrowed and repay it and the interest in a lump sum at the end of a year or other specified time period. Instead he or she makes periodic payments, usually monthly, on both the principal and the interest during the time of the loan.

For example, on a \$200 washer, you are asked to put 10 percent down and pay the balance in one year. The credit charge for this service is quoted as \$15. You pay \$20 down, leaving \$180 plus \$15 credit charge or \$195 to repay in 12 months. This amounts to \$16.25 a month. So each month you would pay \$15 on the principal (\$180 divided by 12) and \$1.25 on the interest (\$15 divided by 12). In this example the interest charge remains constant while the money in use diminishes. The following table will help to clarify this point:

<i>Month</i>	<i>Actual money in use</i>	<i>Amount you pay monthly for money in use</i>
1.....	\$180	\$1.25
2.....	165	1.25
3.....	150	1.25
4.....	135	1.25
5.....	120	1.25
6.....	105	1.25
7.....	90	1.25
8.....	75	1.25
9.....	60	1.25
10.....	45	1.25
11.....	30	1.25
12.....	15	1.25
Average.....	97.50 ^a
Total interest	15.00

(^a The total of the money in use each month — \$1170 — divided by 12.)

To figure the actual rate of interest, use the simple interest formula:

$$R = \frac{D}{PT}$$

where

R = unknown annual rate of interest

D = dollar cost of credit — \$15

P = principal — \$97.50 (average actual money in use)

T = time — 1 year

$$R = \frac{\$15}{\$97.50 \times 1} = .1538$$

$$R = 15.4 \text{ percent}$$

The actual annual interest rate in this case is 15.4 percent. If you had borrowed the \$180 and paid it back in a lump sum at the end of the year, the true annual interest rate would have been 8.3 percent. But when you repay your loan monthly you do not have the use of \$180 for the year; instead you have \$97.50 on the average for the year. Therefore, the true annual interest rate is almost twice as much when you repay a loan monthly rather than in a lump sum at the end of the period.

The simple interest formula could still be used in this example, because we had figured the average amount of money in use per month. Obviously, it would be a long and complicated task to figure the average actual amount of money in use per month each time you make a purchase on the installment plan. You can save time by using the following formula, which is one of the simplest for figuring the cost of installment credit:

$$i = \frac{2mD}{P(n + 1)}$$

where

i = unknown annual rate of interest

m = number of payments in one year

n = number of payments to discharge debt

D = charge in dollars (includes all carrying charges)

P = principal or cash advance

You will note that the symbols P and D have the same meaning as in the simple interest formula. The symbol m is the number of installment payments in one year. If the debt is repaid monthly, m is 12; if weekly, m is 52. On the other hand, n is the number of payments made to discharge the debt. If the debt must be repaid in 18 monthly payments, n is 18; if in 24 monthly payments, n is 24.

Let us suppose that you want to buy a refrigerator costing \$300 and that you will pay for it in monthly payments over a two-year period. The credit charge is \$50. What rate of interest will you be paying?

$$i = \frac{2mD}{P(n + 1)}$$

where

i = unknown annual rate of interest

m = number of payments in one year — 12

n = number of payments to discharge debt — 24

D = charge in dollars — \$50

P = principal — \$300

$$i = \frac{2 \times 12 \times \$50}{\$300 \times 25} = \frac{1,200}{7,500} = .16$$

$i = 16 \text{ percent}$

Comparing Credit Costs

The formula for figuring interest on installment payments has been used in the following examples to illustrate the cost of credit from three different sources for an automatic washer and from four different sources for an automobile. (The figures in the examples are used only for illustra-

tive purposes. When you purchase in your community you need to check with each source of credit, since rates vary from store to store as well as from one lending source to another.)

Credit Costs for an Automatic Washer

You want to purchase an automatic washer at a cost of \$200 and will need \$180 credit for one year. (It is assumed that you have the \$20 required for the down payment.) Where should you go to get this credit?

Store. At the store you are quoted monthly payments of \$16.25. This amounts to a total payment of \$195 ($\16.25×12). Since you borrow only \$180, the remaining \$15 is the credit charge. To figure the annual rate of interest, you use the formula on page 12 as it is.

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

$i =$ unknown annual rate of interest
 $m =$ number of payments in one year — 12
 $n =$ number of payments to discharge debt — 12
 $D =$ charge in dollars — \$15
 $P =$ principal — \$180

$$i = \frac{2 \times 12 \times \$15}{\$180 \times 13} = \frac{360}{2,340} = .1538$$
$$i = 15.4 \text{ percent}$$

Small loan company. You could borrow the money and pay cash. A small loan company offers a rate of 2.5 percent month on the unpaid balance. To find the annual rate of interest, i , you need to multiply the monthly rate, 2.5 percent, by 12; i is therefore 36 percent. Then to find the charge in dollars when the annual interest rate is known, the formula can be changed as follows:

$$D = \frac{iP(n + 1)}{2m} \quad \text{where}$$

$D =$ unknown charge in dollars
 $i =$ 30 percent or .30
 $m =$ number of payments in one year — 12
 $n =$ number of payments to discharge debt — 12
 $P =$ principal — \$180

$$D = \frac{.30 \times \$180 \times 13}{24} = \frac{\$702}{24} = \$29.25$$
$$D = \$29.25 \text{ annual charge.}$$

Bank. You can borrow the money from a bank at a 6 percent discount rate with an added \$2 fee for investigation. To have \$180 to use for one year, you must borrow \$194 since in a discount transaction the interest (\$11.64 in this case) is subtracted before the money is given to you, and you also need \$2 for the investigation fee. If you borrow \$194 from the bank, minus \$13.64 for the discount cost and investigation fee, you

actually receive \$180.36 to be paid back in monthly payments. Use the original formula to find the annual rate of interest that you would pay.

$$i = \frac{2mD}{P(n + 1)}$$

$$i = \frac{2 \times 12 \times \$13.64}{\$180.36 \times 13} = \frac{327.36}{2,344.68} = .1396 \text{ or } .14$$

$i = 14 \text{ percent}$

where

i = unknown annual rate of interest
 m = number of payments in one year — 12
 n = number of payments to discharge debt — 12
 D = charge in dollars — \$13.64
 P = principal — \$180.36

Three costs compared. Now to help decide which is the best source of credit, you can arrange the costs and interest rates in tabular form.

<i>Source of credit</i>	<i>Annual interest rate</i>	<i>Dollar cost per year</i>
Store	15.4%	\$15.00
Small loan co.	30.0	29.25
Bank	14.0	13.64

Credit Costs for an Automobile

You want to buy an automobile and will need \$1,500 credit for 24 months. (It is assumed that you can make a down payment of one-third of the total cost.) Where should you go to get this credit?

Dealer arranges through bank. The automobile salesman suggests that the dealer can finance the \$1,500 for you through a local bank. He or she says that you will make your 24 monthly payments directly to the bank. The monthly payments will be \$73.61. This amounts to a total repayment of \$1,766.64 (\$73.61 × 24). Since you borrow only \$1,500, the remaining \$266.64 is the credit charge. To figure the annual rate of interest, i , you use the formula as is:

$$i = \frac{2mD}{P(n + 1)}$$

$$i = \frac{2 \times 12 \times \$266.64}{\$1,500 \times 25} = \frac{6,399.36}{37,500} = .1706$$

$i = 17.1 \text{ percent}$

where

i = unknown annual rate of interest
 m = number of payments in one year — 12
 n = number of payments to discharge debt — 24
 D = charge in dollars — \$266.64
 P = principal — \$1,500

Automobile loan agency. The same salesman also tells you that, if you prefer, you can finance the car through the dealer's automobile loan

agency. For this type of transaction, he or she quotes you a monthly payment figure of \$74.25 for 24 months. This would be a total repayment of \$1,782 (\$74.25 × 24). Since you again would borrow only \$1,500, the remaining \$282 is the credit charge. Using the formula, you figure the interest:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest

m = number of payments in one year — 12

n = number of payments to discharge debt — 24

D = charge in dollars — \$330

P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$330}{\$1,500 \times 25} = \frac{7,920}{37,500} = .2112$$

i = 21.1 percent

Directly from bank. You could borrow the \$1,500 from a bank and pay cash. A local bank offers you monthly payments of \$72.32 for 24 months. This amounts to a total repayment of \$1,735.68 (\$72.32 × 24), making the credit charge \$235.68. Applying the formula, you get these figures:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest

m = number of payments in one year — 12

n = number of payments to discharge debt — 24

D = charge in dollars — \$235.68

P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$235.68}{\$1,500 \times 25} = \frac{5,656.32}{37,000} = .1508$$

i = 15.1 percent

Finance company. You could borrow the money from a finance company, where you are quoted monthly payments of \$82 for 24 months. These amount to a total repayment of \$1,968 (\$82 × 24). Subtracting \$1,500, the amount of your loan, you have a credit charge of \$468. The interest rate works out as follows:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

i = unknown annual rate of interest

m = number of payments in one year — 12

n = number of payments to discharge debt — 24

D = charge in dollars — \$468

P = principal — \$1,500

$$i = \frac{2 \times 12 \times \$468}{\$1,500 \times 25} = \frac{11,232}{37,500} = .2995$$

i = 29.95 percent

Credit union. You could borrow the \$1,500 from a credit union, if there is one where you work. The credit union manager quotes you payments of \$69.77 for 24 months. The total amount repaid is \$1,674.48 (\$69.77 × 24) and the total credit charge is \$174.48. The interest is:

$$i = \frac{2mD}{P(n + 1)} \quad \text{where}$$

$$i = \frac{2 \times 12 \times \$174.48}{\$1,500 \times 25} = \frac{4,187.52}{37,500} = .1117$$

$i = 11.2$ percent

i = unknown annual rate of interest
 m = number of payments in one year — 12
 n = number of payments to discharge debt — 24
 D = charge in dollars — \$174.72
 P = principal — \$1,500

Comparing costs. For the sake of easy comparison, the charges made by the five credit sources are presented in Table 1. The cost of each source of credit includes a charge for a life insurance policy that would pay the loan in the event of the borrower's death.

If you feel that the preceding formulas are too complicated, see Table 2, "What You Pay for Credit." Armed with the information in this table, as well as on the preceding pages, you should be able to compare the true cost of loans from various sources.

Table 1. — Charges by Five Sources of Credit for an Automobile

Source of credit	Monthly payment	Annual interest rate, percent	Cost for 2-year period
Bank through automobile dealer	\$73.61	17.1	\$266.64
Automobile agency	74.25	18.1	282.00
Bank	72.32	15.1	235.68
Finance company	82.00	29.95	468.00
Credit union	69.78	11.2	174.72

Table 2. — What You Pay for Credit

If interest is added to purchase price and the total is repaid in 12 monthly payments		If interest is charged "only on the unpaid balance"	
When they say:	You pay an annual rate of:	When they say:	You pay an annual rate of:
4% per year.....	7.3%	3/4 of 1% per month.....	9%
6% yer year.....	10.9%	5/6 of 1% per month.....	10%
8% per year.....	14.5%	1% per month.....	12%
10% per year.....	18.0%	1¼ % per month.....	15%
1% per month.....	21.5%	1½ % per month.....	18%
		2% per month.....	24%
		2½ % per month.....	30%

Advantages of Using Credit

The fact that more families make use of more credit every year indicates that they find advantages in its use. Credit may be used as a convenience, to establish a credit rating, to meet emergencies, to consolidate debts, to take advantage of bargains, to get better service on equipment, or to obtain the use of an article earlier than would otherwise be possible. Prudent persons are able to make wise use of credit.

Convenience

Most families find it convenient to use some form of credit. For example, it is easier to pay for the home-delivered newspaper or milk by the week or month than by the day. It is often more convenient to pay for a series of office calls at the doctor's or dentist's once a month rather than after each visit. Some families feel it is convenient to use an oil company credit card to charge goods and services at their local gasoline service station. They also find it safer to use a credit card on automobile trips than to carry cash for automobile expense or emergency.

Establish Good Credit Standing

One reason that families give most often for using credit is that they want a good credit standing. When you open a charge account or take out an installment contract, you are establishing a credit rating. If there is a credit bureau in the community, a record of whether your account is cleared "on time," in a "satisfactory" manner, or "30 days late" will be filed. Of course your individual creditors will have such records in their files for referral when you wish to use them as references.

Good credit standing is especially important to families, since emergencies may arise when credit is needed. Unless your credit rating is established, you may not be able to get credit readily when you need it.

Consolidate Debts

It may be to the family's advantage to consolidate several installment accounts, thus saving money on interest charges. This may often be done by taking out further credit—for example, in the form of a bank loan. The interest charge for the bank loan is generally less than the carrying charges on installment purchases.

Take Advantage of Bargains

Families can sometimes use credit to take advantage of special bargains and sales. These purchases are bargains when the items are needed or are planned for in the family's financial program.

Better Service on Equipment

Another reason families often give for the use of credit is that they believe they receive better service on equipment. This is especially true when equipment is purchased on the installment plan. The dealer can be expected to keep the article in good repair, since he usually holds the title until the item is paid in full. In addition, the credit customer is often a repeat customer, so dealers are especially interested in keeping credit customers satisfied.

Earlier Use of Articles

Through credit, a family can have the use of an article while paying for it. This is of major importance for young couples just establishing homes.

Disadvantages of Using Credit

Costs Money

Credit costs money. Families can get more goods and services for their money if they save for purchases and pay cash rather than buying on credit. Their savings can be earning interest until the purchase is made.

Hidden Cost

The cost of credit is often hidden. You can overcome this disadvantage by investigating the cost of credit thoroughly before you buy. Although most people would not pay cash for an article without knowing its complete cost, they often neglect to ask the cost when they are buying it on credit.

Overbuying

Charge account holders (as well as installment plan buyers) sometimes tend to overbuy or buy on impulse when not faced with the immediate problem of paying cash.

Merchandise Costs More

Since charge accounts increase the store's cost of doing business, some merchandise may cost more in any store that offers charge accounts. This added cost is in lieu of a charge on the account itself.

Mortgages the Future Income

Signing an installment or credit contract mortgages the future income of the family. This can create "debt worries" if too many goods are purchased at one time.

Your Family's Use of Credit

Good financial management often includes the wise use of credit. Although credit can be a valuable tool when used wisely, it can be destructive when used unwisely.

The use of credit can be constructive when it will advance the long-term goals of the family, when the goods purchased on credit give enough satisfaction to compensate for the adjustments necessary to repay the debt, and when the family deems it more sensible to use credit than to save and pay cash later. By using credit, the family can buy such items as equipment and furnishings when the need for such items is greatest.

Each family must decide for itself whether the use of credit should be included in its financial management. The amount of credit you can use safely will depend on your current income as well as your income prospects, your current fixed expenditures, the size of your family, your family's stage in the family life cycle, and the thrift habits of family members. Since these factors vary from family to family, there is no "rule" that can be set for *your* family's use of credit.

A word of final advice to you and your family when using credit — always find the true cost (both in terms of interest rate and dollar cost) of credit to you.

References for Further Reading

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If you would like additional information about using credit, see your county Extension advisor. If you need information specifically about consumer credit regulation, write the Illinois Attorney General's Office, which enforces state laws pertaining to consumer credit: Attorney General, Room 204, 134 North LaSalle Street, Chicago, Illinois 60601.

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